

BLAGONRAVOV, A.A.

"Some Problems of Providing for Scientific Research on Rockets."

report presented at the 14th Annual Meeting of American Rocket Society, Wash, D.C.
16-20 Nov 59.

RAYEVSKIY, Nikolay Petrovich, kand.tekhn.nauk; ARTOBOLEVSKIY, I.I., akademik, otv.red.; BLAGONRAVOY, A.A., akademik, red.; BRUYEVICH, N.G., akademik, red.; DIKUSHIN, V.I., akademik, red.; SERENSEN, S.V., akademik, red.; PINEGIN, S.V., prof., doktor tekhn.nauk, red.; LEVITSKIY, N.I., prof., doktor tekhn.nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn.nauk, red.; BISSONOV, A.P., kand.tekhn.nauk, red.; BELYANIN, P.N., red.izd-va; ASTAF'YEVA, G.A., tekhn. red.

[Indicators of mechanical parameters of machines] Datchiki mekhanicheskikh parametrov mashin. Moskva, Izd-vo Akad.nauk SSSR, 1959. 186 p. (MIRA 13:1)

1. AN USSR (for Serensen).
(Measuring instruments) (Machinery--Testing)

PHASE I BOOK EXPLOITATION 507/1693

Mezhothenyul' troyanai Vselesenny (Untrudnen paths of the Universe) Moscow, Izd-vo "Pravda," 1959. 63 p. (Series: Biblioteka "Kosmopol'skoy pravdy," no. 11) 131,000 copies printed.

Ed.: V. Bukushkin; Tech. Ed.: E. Novikova.

PURPOSE: This popular science booklet is intended for the general reader.

COVERAGES: The booklet contains 11 articles dealing with early and recent efforts and accomplishments in space exploration. Though popular in style, the articles are written by leading Soviet scientists in the field. The contributions of E. E. Tikhonov to space science are briefly presented. Satellites, space rockets, future space craft, and certain pertinent engineering problems are discussed. No personalities are mentioned. No references are given.

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Korot, Y. [Candidate of Physics and Mathematics. Worker of the Gosudarstvennyy astronomicheskii Institut imeni P. K. Shernberg - State Astronomical Institute imeni P. K. Shernberg]. The Manned Constellation 49

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AVAILABLE: Library of Congress

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KHRUSHCHOV, Mikhail Mikhaylovich; BERKOVICH, Yefim Solomonovich; BLAGO-
BRAYOV, A.A., akademik, otv.red.; RZHEZNIKOV, V.S., red.izd-va;
POLENOVA, T.P., tekhn.red.

[Determining wear in machine parts by the artificial indentation
method] Opređenje iznosa detalei mashin metodom iskusstvennykh
baz. Moskva, Izd-vo Akad.nauk SSSR, 1959. 217 p. (MIRA 12:4)
(Mechanical wear)

DIMENTBERG, Fedor Menas'yevich, doktor tekhn.nauk; SERENSEN, S.V., akademik, otv.red.; ARTOBOLLEVSKIY, I.I., akademik, otv.red.; BLAGONRAYOV, A.A., akademik; red.; BRUYEVICH, N.G., akademik; red.; DIKUSHIN, V.I., akademik; red.; PINEGIN, S.V., prof., doktor tekhn.nauk, red.; LEVITSKIY, N.I., prof., doktor tekhn.nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn.nauk, red.; RAYEVSKIY, N.P., kand.tekhn.nauk, red.; BESSONOV, A.P., kand.tekhn.nauk, red.; MELEYEV, A.S., red.isd-wa; KUZ'MIN, M.K., tekhn.red.; MAKUNI, Ye.V., tekhn.red.

[Bending vibrations of revolving shafts] Izgibnye kolebaniya vrashchayushchikhsia valov. Moskva, Izd-vo Akad.nauk SSSR, 1959. 246 p.

1. Akademiya nauk USSR (for Serensen).
(Vibration) (Shafting)

ARTOBOLVSKIY, Ivan Ivanovich, akademik; LEVITSKIY, N.I., prof., doktor tekhn.nauk, otv.red.; BLAGONRAVOY, A.A., akademik, red.; BRUYEVICH, N.G., akademik, red.; DIKUSHIN, V.I., akademik, red.; SERENSEN, S.V., akademik, red.; PINEGIN, S.V., prof., doktor tekhn.nauk, red.; DIMENTBERG, F.M., doktor tekhn.nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn.nauk, red.; RAYEVSKIY, N.P., kand.tekhn.nauk, red.; BESSONOV, A.P., kand.tekhn.nauk, red.; PERLYA, Z.N., red.isd-va [deceased]

[Theory of mechanisms for reproduction of flat curves] Teoriia mekhanizmov dlia vosproizvedeniia ploaskikh krivyykh. Moskva, Isd-vo Akad.nauk SSSR, 1959. 253 p. (MIRA 12:8)

1. AN USSR (for Serensen).
(Drawing instruments)

TSIOLKOVSKIY, Konstantin Eduardovich; VOROB'YEV, B.N., inzh., red.-sostavitel'
toma; BLAGONRAVOV, A.A., akademik, otv.red.; SEMENOV, V.A., doktor
tekhn.nauk, prof., sasluzhennyi deyatel' nauki i tekhniki. BSFSR,
nauchnyy red. тома; RAPOPORT, Ya.A., red.isd-va; PRUSAKOVA, T.A.,
tekhn.red.

[Collected works] Sobranie sochinenii. Vol.3. [Dirigibles]
Dirizhabli. Moskva, Izd-vo Akad.nauk SSSR. 1959. 316 p.
(Airships) (MIRA 12:4)

BLAGONRAVOV, A. A.

CHERKUDINOV, Sergey Aleksandrovich; ARTOBOLEVSKIY, I.I., akademik, otv.red.; BLAGONRAVOV, A.A., akademik, otv.red.; BRUYEVICH, N.G., akademik, red.; DIKUSHIN, V.I., akademik, red.; SERENSEN, S.V., akademik, red.; PINEGIN, S.V., prof., doktor tekhn.nauk, red.; LEVITSKIY, N.I., prof., doktor tekhn.nauk, red.; DIMENTBERG, F.M., doktor tekhn.nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn.nauk, red.; RAYEVSKIY, N.P., kand.tekhn.nauk, red.; BESSONOV, A.P., kand.tekhn.nauk, red.; KUDASHEV, A.I., red.isd-va; ASTAF'YEVA, G.A., tekhn.red.

[Synthesis of flat hinged-lever mechanisms; problems on the reproduction of a continuous function on a given section]
 Sintez ploskikh sharnirno-rychazhnykh mekhanizmov; zadachi o vosproizvedenii nepreryvnoi funktsii na zadannom otrezke.
 Moskva, Izd-vo Akad.nauk SSSR, 1959. 321 p. (MIRA 13:1)

1. AN USSR (for Serensen).
 (Machinery, Kinematics of)

SOV/180-59-1-1/29
AUTHORS: Nesmeyanov, A.N., Topchiyev, A.V. and Blagonravov, A.A.
TITLE: To Academician Lev Dmitriyevich Shevyakov (Akademiku
L'vu Dmitriyevichu Shevyakovu)
PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Metallurgiya i toplivo, 1959, Nr 1, p 3 (USSR)
ABSTRACT: The authors, on behalf of the Prezidium Akademii nauk
SSSR (Presidium of the Academy of Sciences of the USSR)
and the Otdeleniye tekhnicheskikh nauk AN SSSR
(Technical-sciences section, AS USSR), congratulate
Card 1/1 Shevyakov on his 70th birthday and outline his work.
They mention the rewards and honours he has received.
ASSOCIATION: Academy of Sciences of the USSR

KONSTANTINOV, B.P.; DEBORIN, A.M., akademik; PEYVE, Ya.V.; IOFFE, A.F.,
akademik; MIKHAYLOV, A.I., prof.; SATPAYEV, K.I., akademik;
ZHUKOV, Ye.M., akademik; LAVRENT'YEV, M.A., akademik; SEMENOV, N.N.,
akademik; PAVLOVSKIY, Ye.N., akademik; MINTS, I.I., akademik;
SISAKYAN, N.M.; ROMASHKIN, P.S.; FEDOROV, Ye.K.; STECHKIN, B.S.,
akademik; MAYSKIY, I.M., akademik; PAVLOV, Todor, akademik;
ARBUZOV, A.Ye., akademik; VASIL'YEV, N.V., doktor ekon.nauk;
BELOUSOV, V.V.; MITIN, M.B., akademik; BLAGONRAVOV, A.A., akademik;
KANTOROVICH, L.V.; RYBAKOV, B.A., akademik; NEMCHINOV, V.S., akademik

Discussion of the address. Vest. AN SSSR 29 no.4:34-63 Ap '59.
(MIRA 12:5)

1.Chlen-korrespondent AN SSSR (for Konstantinov, Peyve, Sisakyan,
Romashkin, Fedorov, Belousov, Kantorovich).
(Science)

BLAGONRAVOV, A. A. Academician Secretary Dept. Tech. Sci., AS USSR

"Control Over Means of Delivery."

paper presented at the Pugwash Conference on Disarmament and World Security,
Moscow, 27 Nov-6 Dec 60.

BLAGONRAVOV, A. A.

"Proposal for Special Surveillance Force, T.C. Schelling On the Control of Means for the Delivery of Weapons of Mass Annihilation."

report submitted for the 6th Pugwash Conference on Disarmament & World Security, Moscow 27 Nov-5 Dec 1960.

GERTS, Yelena Vasil'yevna; KREYNIN, German Vladimirovich; ARTOBOLVSKIY, I.I., akademik, otv.red.; BLAGONRAVOV, A.A., akademik, red.; BRUYEVICH, N.G., akademik, red.; DIKUSHIN, V.I., akademik, red.; SERENSEN, S.V., akademik, red.; PINEGIN, S.V., doktor tekhn.nauk, red.; LEVITSKIY, N.I., prof., doktor tekhn.nauk, red.; DIMENTBERG, F.M., doktor tekhn.nauk, red.; KOBRINSKIY, A.Ye., doktor tekhn.nauk, red.; RAYEVSKIY, P.P., kand.tekhn.nauk, red.; BESSONOV, A.P., kand.tekhn.nauk, red.; GORSHKOV, G.B., red.izd-va; MAKOGONOVA, I.A., tekhn.red.

[Theory and design of pneumatic power devices] Teoriia i raschet silovykh pnevmaticheskikh ustroystv. Moskva, Izd-vo Akad.nauk SSSR, 1960. 177 p. (MIRA 14:2)

1. AN USSR (for Serensen).
(Pneumatic machinery)

BLAGON RAVOV, A.A.

PHASE I BOOK EXPLOITATION

SOV/5053

Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh. 3d,
1958.

Iznos i iznosostoykost'. Antifriktsionnyye materialy (Wear and
Wear Resistance. Antifriction Materials) Moscow, Izd-vo AN
SSSR, 1960. 273 p. Errata slip inserted. 3,500 copies printed.
(Series: Its: Trudy, v. 1)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.
Resp. Ed.: M. M. Khrushchov, Professor; Eds. of Publishing
House: M. Ya. Klebanov, and S. L. Orpik; Tech. Ed.:
T. V. Polyakova.

PURPOSE: This collection of articles is intended for practicing
engineers and research scientists.

COVERAGE: The collection, published by the Institut mashinovedeniya,
AN SSSR (Institute of Science of Machines, Academy of Sciences
USSR) contains papers presented at the III Vsesoyuznaya Kon-
ferentsiya po treniyu i iznosu v mashinakh (Third All-Union

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Wear and Wear Resistance (Cont.)

SOV/5053

Conference on Friction and Wear in Machines) which was held April 9-15, 1958. Problems discussed were in 5 main areas: 1) Hydrodynamic Theory of Lubrication and Friction Bearings (Chairmen: Ye. M. Gut'yar, Doctor of Technical Sciences, and A. K. D'yachkov, Doctor of Technical Sciences); 2) Lubrication and Lubricant Materials (Chairman: G. V. Vinogradov, Doctor of Chemical Sciences); 3) Dry and Boundary Friction (Chairmen: B. V. Deryagin, Corresponding Member of the Academy of Sciences USSR, and I. V. Kragel'skiy, Doctor of Technical Sciences); 4) Wear and Wear Resistance (Chairman: M. M. Krushchov, Doctor of Technical Sciences); and 5) Friction and Antifriction Materials (Chairmen: I. V. Kragel'skiy, Doctor of Technical Sciences, and M. M. Krushchov, Doctor of Technical Sciences). Chairman of the general assembly (on the first and last day of the conference) was Academician A. A. Blagonravov. L. Yu. Pruzhanskiy, Candidate of Technical Sciences, was scientific secretary. The transactions of the conference were published in 3 volumes, of which the present volume is the first. This volume contains articles concerning the wear and

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Wear and Wear Resistance (Cont.)

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wear resistance of antifriction materials. Among the topics covered are: modern developments in the theory and experimental science of wear resistance of materials, specific data on the wear resistance of various combinations of materials, methods for increasing the wear resistance of certain materials, the effects of friction and wear on the structure of materials, the mechanism of the seizing of metals, the effect of various types of lubricating materials on seizing, abrasive wear of a wide variety of materials and components under many different conditions, modern developments in antifriction materials, and the effects of finish machining on wear resistance. Many personalities are mentioned in the text. References accompany most of the articles.

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| PHASE I BOOK EXPLOITATION | SOV/5291 |
| Sovetskaniye po kompleksnoy mekhanizatsii i avtomatizatsii tekhnologicheskikh protsessov v mashinostroyeni. 2d, Moscow, 1956 | |
| Avtomatizatsiya mashinostroyeniya protsessov, t. III: Obrabotka rezaniyem i obeshchiye voprosy avtomatizatsii (Automation of Machine-Building Processes, v. 3: Machining and General Automation Problems) Moscow, izd-vo AN SSSR, 1960. 296 p. (Series: Its: Trudy, t. 3) 4,700 copies printed. | |
| Sponsoring Agency: Mendeleya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya. | |
| Resp. Ed.: V. I. Dikushin, Academician; Ed. of Publishing House: V. A. Kotov; Tech. Ed.: I. P. Kur'min. | |
| PURPOSE: This collection of articles is intended for technical personnel concerned with the automation of the machine industry. | |
| COVERAGE: This is Volume III of the transactions of the Second Conference on the Full Mechanization and Automation of Manufacturing Processes in the Machine Industry, held September 25-29, 1956. The transactions have been published in three volumes. Volume I deals with the hot pressworking of metals, and volume II, with the cutting and control of machines. The present volume deals with the automation of metal machining and work-hardening, and with general problems encountered in automation. The transactions on the automation of metal-machining processes were published under the supervision of P. S. Dem'yanok and A. M. Karatygin, and those on the automation of work-hardening processes, under the supervision of E. A. Satel' and M. O. Yakobson. No personalities are mentioned. There are no references. | 32 |
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| AVAILABLE: Library of Congress | |

S/025/60/000/06/02/012

AUTHOR: Blangonravov, A. Academician

TITLE: The Flight of Man Into Space is Not Far Away in the Future

PERIODICAL: Nauka i zhizn', 1960, No. 6, p 7

TEXT: A. Blangonravov thinks that even the most perfect automatic systems cannot replace human brains in getting information from the outer world, and the flight of man into space is of extremely great importance for science. He states that the first question asked by press reporters abroad is regularly "When will the Soviet Union send a man into the Universe?". No precise time of such flight can be given yet but it is no longer far away. The guaranty for this is the progress in radio engineering, electronics, aerodynamics, computer engineering and metallurgy in the Soviet Union.

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9/030/60/000/007/002/011
B016/B058

3.2000

AUTHORS: Blagonravov, A. A., Academician, Kroshkin, M. G.

TITLE: Geophysical Research by Means of ²Rockets and ²Artificial Satellites

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, No. 7, pp. 7-20

TEXT: The authors discern two trends in the development of geophysical and cosmic research: a) recording the data of the upper strata of the atmosphere, such as solar radiation, cosmic radiation,² electric and magnetic fields, and b) preparing the cosmic flight of man.² Research by means of rockets and satellites complement each other. On the Soviet Delegate's proposal to the 5th Assembly of the Special Committee of the International Geophysical Year (Moscow, August, 1958), the activities of the International Geophysical Year were extended as International Geophysical Cooperation. Altogether 175 rockets have been launched by the Soviet Union. The following launching bases are mentioned: the Heiss Island (Franz Josef Land), mean latitudes of the USSR territory and an expedition vessel (launchings in the vicinity of the South Pole

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Geophysical Research by Means of Rockets
and Artificial Satellites

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Observatory Mirnyy, in equatorial latitudes, and in the North Pacific). 158 rockets investigated the meteorological conditions of the upper stratosphere, 17 rockets served for a comprehensive geophysical study of the atmosphere at altitudes of from 100 to 470 km. The measuring instruments used are tabulated. Nine rockets carrying experimental animals were launched. When studying micrometeors, not only the number of collisions was recorded, but also their energy, which has the order of 10^4 erg. The number of collisions fluctuates, owing to the inhomogeneity of meteor showers, between $1.7 \cdot 10^{-3}$ and 9 collisions per m^2 and sec. Three satellites were launched during the International Geophysical Year. Their high weight permitted comprehensive measurements of the pressure and composition of the atmosphere, study of corpuscular radiation, short-wave spectrum, and magnetic field, as well as biological experiments. The cosmic rockets launched to the moon are mentioned. Further international cooperation is to be ensured by the United Nations Committee on Space Research. Some satellites launched in the USA for both scientific and military purposes (such as Midas) endanger this cooperation. The following data of the atmosphere are mentioned: at a

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Geophysical Research by Means of Rockets
and Artificial Satellites

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B016/B058

height of 225 km: density = $2.12 \cdot 10^{-3}$ g/cm³, temperature 936°K; at a
height of 300 km: density $3.53 \cdot 10^{-14}$ g/cm³, temperature 1048°K; at a
height of 400 km: density $6.6 \cdot 10^{-15}$ g/cm³, temperature 1373°K; and at a
height of 500 km: density $2.21 \cdot 10^{-15}$ g/cm³, temperature 1953°K. Above
250 km, the atmosphere is of atomic composition, oxygen ions being pre-
dominant. The corona of the earth, a belt of cosmic radiation, was dis-
covered in cooperation with USA scientists. The authors briefly outline
such unsolved problems as the causes of the heating of the upper
atmosphere, the structural inhomogeneity of the ionosphere, the formation
of the F₂ layer, and the radiation balance of the earth. The results
obtained so far are only a beginning. The realization of the cosmic flight
of man and the exploration of other planets are no longer a fantasy.
There is 1 table.

Card 3/3

KOZLOV, F.R.; KOSYGIN, A.N.; ZASYAD'KO, A.F.; NESMETANOV, A.N.; ANTROPOV, P.Ya.; YELUTIN, V.P.; RUDAKOV, A.P.; KIRILLIN, V.A.; TOPCHYEV, Aleksandr V.; BLAGONRAVOV, A.A.; SHEVYAKOV, L.D.; SHILIN, A?A?; MEL'NIKOV, N.V.; KRASNIKOVSKIY, G.V.; TOPCHYEV, Aleksey V.; BOYKO, A.A.; BRATCHENKO, B.F.; GRAFOV, L.Ye.; KUZ'MICH, A.S.; KRATENKO, I.M.; MAN'KOVSKIY, G.I.; PLAKSIN, I.N.; AGOSHEV, M.I. SPIVAKOVSKIY, A.O.; POCHENKOV, K.I.; KRASOZOV, I.P.; KOZHEVIN, G.V.; LINDENAU, N.I.; KUZNETSOV, K.K.

A.S.Skochinskii; obituary. Vest.AN SSSR 30 no.11:73-75 N '60. (MIRA 13:11)
(Skochinskii, Aleksandr Aleksandrovich, 1874-1960.)

BLAGONRAVOV, A. A.

"International Scientific Collaboration"

report presented at the 10th Pugwash Conference, London, 2-7 Sep 61.

S/030/61/000/004/005/015
B105/B206

AUTHOR: Blagonravov, A. A., Academician-Secretary, Academician (see Association)

TITLE: Department of Technical Sciences

PERIODICAL: Vestnik Akademii nauk SSSR, no. 4, 1961, 45-50

TEXT: In his report on the activities of the institutions of the Otdeleniye tekhnicheskikh nauk (Department of Technical Sciences), Academician A. A. Blagonravov, Academician-Secretary, outlined the main trends of these activities. First of all he mentioned studies concerning the biggest possible increase of power supply of the country, opening of new and effective utilization of existing power sources. At the Energeticheskiy institut im. G. M. Krzhizhanovskogo (Institute of Power Engineering imeni G. M. Krzhizhanovskiy), heat exchange installations were developed which operate with much higher temperatures than those used so far. The problem of direct transformation of thermal energy into electric one with a considerable increase of the degree of efficiency was also dealt with. Fundamentally new and promising motors and installations are elaborated at the Laboratoriya

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Department of ...

dvigateley (Laboratory of Motor Building). Electric machine equipment is being perfected at the Institut elektromekhaniki (Institute of Electromechanics). The overall plan of the thermal power-economy of the Karel'skaya ASSR was elaborated and the technical-economic quality indices of various power-supply of the Tatarskaya ASSR and Chuvashskaya ASSR were determined. The Sovet po problemam vodnogo khozyaystva (Council of Problems of the Water Economy) drew up the balance for the water economy of the SSSR (USSR). The Institut goryuchikh iskopayemykh (Institute of Mineral Fuels) was engaged in increasing the utilization of all natural resources. The second important trend is the use of new materials, metals and alloys in industry, construction, and technology elaborated at the Institut metallurgii im. A. A. Baykova (Institute of Metallurgy imeni A. A. Baykov). The third important scientific trend comprises problems of radio engineering and electronics elaborated at the Institut radiotekhniki i elektroniki (Institute of Radio Engineering and Electronics). At the Institut avtomatiki i telemekhaniki (Institute of Automation and Telemechanics), a mathematical apparatus describing the position of optimum control systems of objects was elaborated according to the principle of the maximum by L. S. Pontryagin. Frequency systems of telemechanics are used on the

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S/030/61/000/004/005/015
B105/B206

petroleum fields of Bashkiriya, Tatariya, and Azerbaydzhan. The contactless magnetic logical elements for automatic control systems suggested by the Institute were introduced at the Minskiy zavod avtomaticheskikh liniy (Minsk Plant of Automatic Production Lines) and other plants. The Institut mashinovedeniya (Institute of Sciences of Mechanics) jointly with the Akusticheskiy institut (Acoustics Institute) elaborated principles of vibro-acoustic calculation of a certain class of mechanism. A. A. Blagonravov finally stated that the level of studies by the scientific institutions of the Department has greatly risen, but an extension of the institutes and improvement of their equipment is necessary. The following delegates participated in the discussion: the Academicians A. A. Bochvar, M. P. Kostenko, A. A. Mikulin, N. A. Dollezhal', D. A. Zavalishin, A. P. Petrov, V. S. Smirnov, N. S. Streletskiy, and Z. F. Chukhanov, Corresponding Members AS USSR. A report was then delivered by Ye. Ya. Kazovskiy, Candidate of Technical Sciences and Academician M. P. Kostenko on "Modern methods of testing transients in electric ac. machines", which were conducted at the zavod "Elektrosila" ("Elektrosila" Plant) and the Institute of Electromechanics. Delegates from electric machine building plants participated in the discussion. The method proposed by Ye. Ya. Kazovskiy was considered to

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Department of ...

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be promising. It was decided to continue the studies.

ASSOCIATION: Otdeleniye tekhnicheskikh nauk (Department of Technical Sciences) [Abstracter's note: Name of association was taken from first page of journal.]

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PETROV, B.N.; SOTSKOV, B.S.; LARIONOV, A.N.; CHILIKIN, M.G.;
SYROMYATNIKOV, I.A.; BLAGONRAVOV, A.A.; KRUSHILIN, G.N.;
IVAKHNENKO, A.G.; NAGORSKIY, V.D.; CHELYUSTKIN, A.B.;
DROZDOV, N.G.; PETROV, I.I.

Seventieth birthday of Viktor Sergeevich Kulebakin. Elektrich-
estvo no.10:90-91 0 '61. (MIRA 14:10)
(Kulebakin, Viktor Sergeevich, 1891-)

SISAKYAN, N.M., akademik; MINTS, I.I., akademik; SATPAYEV, K.I.; akademik;
FRUMKIN, A.N., akademik; SHEMYAKIN, M.M., akademik; SOBOLEV, S.L.,
akademik; SHULEYKIN, V.V., akademik; BITSADZE, A.V.; MEL'NIKOV, N.V.;
KHOVSTOV, V.M.; ROMASHKIN, P.S.; ABDULLAYEV, Kh.M.; DADYKIN, V.P.,
doktor biol.nauk; OBOLENTSEV, R.D., doktor khim.nauk; PONOMAREV,
B.N.; BLAGONRAVOV, A.A., akademik; ARTSIMOVICH, L.A., akademik;
KOSTENKO, M.P., akademik; NALIVKIN, D.V., akademik

Discussion of the report. Vest.AN SSSR 31 no.3:27-47 Mr '61.
(MIRA 14:3)

1. AN Kazakhskoy SSSR (for Satpayev). 2. Chleny-korrespondenty
AN SSSR (for Bitsadze, Mel'nikov, Khvostov, Romashkin, Abdullayev,
Ponomarev).

(Research)

3.2100
17.0000 3212

23453
S/030/61/000/006/004/014
B101/B206

AUTHOR: Blagonravov, A. A., Academician

TITLE: Preparation of the flight of man into cosmic space

PERIODICAL: Akademiya nauk SSSR. Vestnik, ³¹no. 6, 1961, 19 - 30

TEXT: A survey is given of work required for realizing the flight by Yu. A. Gagarin on April 12, 1961. With the collaboration of Academician S. I. Vavilov a group of scientists and designers started to design rockets, with the aid of which a comprehensive geophysical research program was carried through. The rockets are called "academic" rockets (in contrast to meteorological ones). Already the first rockets were equipped for carrying animals. Conditioning of the atmosphere, recording of biological data, and problems of bringing back motion pictures and recorders are mentioned. In 1951, the first rocket carrying an animal was started to a height of 101 km. Later flights reached heights of from 200 to 475 km. The ultrasonic speed of rockets led to research in this field. The rocket size increased due to comprehensive programs. Recovery of animals

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Preparation of the flight of man...

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B1 01/B206

by means of the successive effect of parachutes or by catapulting at a height of 90 or 40 km was improved. The first satellite weighing 83.6 kg was started on October 4, 1957. The second weighing 508 kg carried the dog "Layka" and its telemetric system was perfect. The third satellite (1.5 t) started in May, 1958. Research results: Existence of two radiation belts, soft corpuscular currents, higher density of the upper atmosphere than expected, composition of the ionosphere, data on the magnetic field of the earth. On January 2, 1959, the start of the rocket to the moon, which became a satellite of the sun, and later, the start of the rocket which landed on the moon and of that which flew around it. The problem of orientation of rockets in space in order to take photographs, and of the control of various processes from the earth, is mentioned. 26 rockets started to a height from 100 to 470 km in 1957 - 1960, 16 of them carrying animals. 31 flights with animals have taken place since 1951. The meteorological rockets, 160 of which were started in 1960, are not included in these figures. Further development led to the start of still heavier satellites on May 15, in August and December 1960 (4.5 t). From the satellite started in August, 1960, the

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animals were recovered for the first time (the dogs "Belka" and "Strelka"). A satellite weighing 6 t was started on February 4, 1961, the rocket to the Venus (start from a satellite) on February 12, 1961. The radiation belt was investigated by scintillation and gas discharge counters with diurnal memory storage and three-electrode traps. In the outer radiation belt were found: 1 Mev electrons, causing bremsstrahlung at the rocket shell; at a height of 30,000 - 40,000 km, a constant spectrum of 130 kev electrons; between 50,000 and 75,000 km, a 200 ev electronic current (10^8 per $\text{cm}^2 \cdot \text{sec}$). This third radiation belt was confirmed by American rockets. The intensity of the corpuscular currents emitted by the sun was studied. Composition of the atmosphere: below 1000 km, oxygen ions are prevalent, between 1000 and 2000 km hydrogen ions. The concentration of the hydrogen corona remains almost constant up to 15,000 km (1000 ions per cm^3), increases between 15,000 and 20,000 km, and drops above 20,000 km to 100 ions per cm^3 . Positive ions of corpuscular radiation of the sun were found at 100,000 km height. The composition of primary cosmic radiation was investigated from the second and third satellite by means of photoemulsion, which was developed in the satellite after 10 hr exposure.

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Control by means of correcting pulses is mentioned, as well as the calculation of their intensity by computers. In the "Vostok" satellite, one axis was oriented toward the sun. The signals of optical and gyroscopic pickups were transformed in an electronic block into pulses for the control organs. Deceleration during landing was done with the aid of the atmosphere, so that small braking pulses were sufficient. Protection against overheating was achieved by the shape of the cabin and by special heat-insulating material. Although the landing of rockets had been tested previously, catapulting of the pilot in a protective suit was preferred for safety reasons. The landing was made by parachute. The first flight by man was fully automatic. However, the pilot had the possibility of interfering with regard to orientation and temperature control (15 - 22°C). Protection against overload was carried out by means of a special seat; the overload acted in the direction chest-back. The atmosphere was conditioned by absorption of CO₂ and H₂O and the separation of O₂ from chemicals, regulated by means of pickups. Air humidity was regulated between 30 and 70%. The protective suit of the pilot was supplied with O₂ from the parachute. The measurements of physiological


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Preparation of the flight of man...

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B101/B206

reactions were transmitted telemetrically to the earth by means of pickups. Still more pickups, storage devices and coding must be used in the future. Three electrocardiographic and one pneumographic recorders were used in the "Vostok". Communication between rocket and earth was made (1) by radiotelemetry; (2) by switching in on board during descent; (3) by a transmitter in the protective suit; (4) the radio system "signal" which continuously transmitted the cardiac contractions; (5) by television, and (6) radio telephone.



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BLAGONRAVOV, A.A., akademik

Symposium "Optical and radio observations of artificial
satellites." Vest. AN SSSR 31 no.8:97-98 Ag '61.
(MIRA 14:8)

(Artificial satellites)

BLAGONRAVOV, A. A.

"National Report of the USSR Academy of Sciences on the Investigations of Outer Space Carried out in the Soviet Union in 1961"

Soviet Papers Presented at Plenary meetings of Committee on Space Research (COSPAR) and Third International Space Science Symposium, Washington, D. C., 23 Apr - 9 May 62.

TSIOLKOVSKIY, Konstantin Eduardovich[deceased]; VOROB'YEV, B.N.;
SOKOL'SKIY, V.N., kand. tekhn. nauk; BLAGONRAVOV, A.A.,
akademik; SOKOLOVA, S.A., red. izd-va; POLENOVA, T.P.,
tekhn. red.; MAKUNI, Ye.V., tekhn. red.

[Selected works] Izbrannye trudy. Red.-sost. B.N. Vorob'ev,
V.N. Sokol'skii. Obshchaia red. A.A. Blagonravova. Moskva,
Izd-vo Akad.nauk SSSR, 1962. 533 p. (MIRA 15:7)

1. Uchenyy sekretar' komissii po razrabotke nauchnogo nasle-
diya K.E. Tsiolkovskogo (for Vorob'yev).
(Spaceflight) (Aeronautics)

S/024/62/000/001/001/013
E194/E484

AUTHOR: Blagonravov, A.A.

TITLE: Problems of the Otdeleniya tekhnicheskikh nauk
(Technical Sciences Division) arising out of the
22nd Congress of KPSS

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
tekhnicheskikh nauk. Energetika i avtomatika, no.1,
1962, 3-15

TEXT: The article reviews the main problems for the Technical Sciences Division AS USSR that arise out of the Party Programme as presented at the 22nd Party Congress. Electrification occupies a central place in building a communist society and so the construction of steam and water power stations and of transmission systems is of the utmost importance. Unit sets of up to 1000 MW will be required and dc transmission lines at 2 MV. Much theoretical work will be required on the power fuel balance, on power system design and other named aspects of generation, distribution and utilization of power. In the development of fuel resources, particular attention will be paid to the
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Problems of the ...

S/024/62/000/001/001/013
E194/E484

integrated utilization of petroleum and gas as well as solid fuel to meet the combined needs of the power and chemical industries. A unified transport system for the USSR needs to be developed with different types of transport fulfilling appropriate functions within the system. Railway electrification and dieselization must proceed apace. Extensive use of metal will continue for many years, new alloys must be developed and supplied in adequate quantity. Particular attention is being paid to the development of high strength materials. Methods of reducing production and labour costs are under consideration. In mining, new physical and electrical methods of mining minerals are required, accompanied by studies of mechanical and other properties of the ore bearing formations. New methods of ore enrichment and concentration are wanted to raise the iron content of the charge to 68% with a minimum amount of harmful impurities. Phase separation methods combined with chemical decomposition of individual phases is a most promising procedure for ore concentration. In electronics, extensive work is in hand on quantum-mechanical generators, on radio wave propagation under

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E194/E484

Problems of the ...

terrestrial and cosmic conditions and on broad-band waveguide communication lines. In furthering the automation of production processes, integrated apparatus is being developed for the automatic synthesis of optimum control systems. Mechanics is an important theoretical basis for the consideration of many problems of engineering, aviation and space technology. An important current trend is the study of gas-hydrodynamics, including study of high-speed flow of high temperature gas and associated problems. High speed motion in liquids is to be studied. The strength and plasticity of strained solids requires study and evaluation. In the mechanics of the solid body it is particularly important to unite the efforts of metal-physicists and mechanic physicists to study internal processes which govern plastic strain and failure under various conditions. New problems are continually arising because of the development of new materials and new methods of working them. Investigations of oscillations and the strength of structures subject to arbitrary forces is of importance, this applies to flying bodies in a turbulent atmosphere. In structural mechanics it is important to develop and improve

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E194/E484

Problems of the ...

approximate methods of static calculations of complicated elastic structures, including thin envelopes and to extend these methods to problems of vibration, stability, wave propagation and flutter. Solution of all these problems will be of value, for instance, in development of supersonic aircraft using small airfields, in the development of fundamentally new types of engine and in using new forms of energy. It is typical of modern mechanics that it is closely allied to physics including quantum mechanics and this unification will extend.

Card 4/4

BLAGONRAVOV, A.A., akademik

Mikhail Mikhailovich Khrushchov (on the occasion of his 70th birthday). Tren.i izn.mash. no.15:7-10 '62. (MIRA 15:4)
(Khrushchov, Mikhail Mikhailovich, 1890)

BLAGONRAVOV, A., akademik

Life, mind, universe. Av.i kosm. 45 no.7:35-41 '62. (MIRA 15:8)
(Astronautics--Research)

BLAGONRAVOV, A. A., akademik

Reliability of technical equipment. Av. 1 korm. 45 no.9:
43-45 '62. (MIRA 15:10)

(Space flight)

BLAGONRAVOV, A., akademik

Cascade of discoveries. Av. i kosm. 45 no.9:81-82 '62.
(MIRA 15:10)

(Outer space—Exploration)

BLAGONRAVOV, A.A.

A study of the investigations of the Upper Atmosphere and the
Outer Space made in the USSR in 1962

Report to be submitted for the 4th International Space Science Symposium
(COSPAR) Warsaw, 2-12 June 63

TSIOLKOVSKIY, Konstantin Eduardovich; BLAGONRAVOV, A.A., akademik,
otv. red.; VOROB'YEV, B.N., red.; PROKOF'YEVA, N.B.,
red. izd-wa; YEGOROVA, N.F., tekhn. red.

[Rocket into outer space; investigation of outer space with
jet-propelled devices] Raketa v kosmicheskoe prostranstvo;
issledovanie mirovyykh prostranstv reaktivnymi priborami. Mo-
skva, Izd-vo AN SSSR, 1963. 110 p. (MIRA 16:6)
(Outer space--Exploration)(Rockets (Aeronautics))
(Tsiolkovski, Konstantin Eduardovich, 1857-1935)

BLAGONRAVOV, A.A., akademik

Automatic control and space flight. Radio no.8:6-7 Ag '63.
(MIRA 16:9)

1. Chlen prezidiuma AN SSSR.
(Space flight) (Astronautics)

L 18493-63

EWI(1)/FS(s)/PCC(w)/FS(v)-2/BDS/ES(v)/EEC-2 AFPTC/ESD-3/
AFMDC/APGC/SSD Ps-4/Pi-4/Po-4/Pq-4 TT/AR/GW/K

ACCESSION NR: AP3007551

S/0030/63/000/009/0009/0016

AUTHOR: Blagonravov, A. A. (Academician)

96
86

TITLE: Recent achievements in space investigation. Investigations of space and upper layers of the atmosphere

SOURCE: AN SSSR. Vestnik, no. 9, 1963, 9-16

TOPIC TAGS: Mars 1, Luna 4, Kosmos satellite, geophysical rocket radar Mercury investigation, radar Venus investigation, radar Mars investigation, cosmic ray, radiation belt, electron flux, solar plasma flux, meteoritic flux, Taurid, Franz-Josef Land

ABSTRACT: Investigations carried out in 1962 by means of the interplanetary stations "Mars 1" and "Luna 4", 16 satellites of the "Kosmos" series, and 72 exploratory rockets are discussed, and the principal results of these investigations are given. "Mars 1" maintained two-way radar communication to a distance of 106×10^6 km. The distance from the earth to the maximum-intensity zone of the inner radiation belt was found to be greater than it had been in

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ACCESSION NR: AP3007551

1958, and the intensity of cosmic radiation, nearly twice that of 1959. An increase in distance from the sun had no effect on this intensity during a period of minimum solar activity. The outer boundary of the radiation belt was found to run along the geomagnetic lines of force. Electron fluxes of energy greater than 80 ev had a density of $2-4 \times 10^8 \text{ cm}^{-2} \cdot \text{sec}^{-1}$, while the solar plasma fluxes of positive ions of energy up to 3200 ev were in the range $10^9 \text{ cm}^{-2} \cdot \text{sec}^{-1} - 3 \times 10^7 \text{ cm}^{-2} \cdot \text{sec}^{-1}$. The impact made by Taurid meteoritic particles of mass greater than 10^{-7} g at altitudes of 6600—42,000 km was measured on a 1.5-m^2 surface and was found to be $7 \times 10^{-3} \text{ m}^{-2} \cdot \text{sec}^{-1}$. Another hitherto unknown meteoritic flux was found at an altitude of $23-45 \times 10^6 \text{ km}$. On the basis of measurements made by "Kosmos" satellites, the average atmospheric density in orbital altitudes of perigee 200—300 km was determined; density increased in the daytime. Fluxes of high energy positive ions of several Kev were detected at a height of 200—1000 km, and their velocity was determined; in the F-layer region their intensity showed a maximum value of the order of

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ACCESSION NR: AP3007551

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$10^9 \text{ cm}^{-2} \cdot \text{sec}^{-1}$. At $\pm 49^\circ$ latitudes and at altitudes in the range 200—1600 km, hitherto unknown corpuscular fluxes of highly variable intensity were discovered. Measurements by means of rockets launched from Franz-Josef Land and from ships in the Pacific Ocean provided much new data on temperature, density, and winds in the upper atmosphere. The continuous temperature inversion in polar zones of the stratosphere was found to be caused by corpuscular radiation; the characteristic diurnal and annual changes in temperature at heights up to 50 km were established to be functions of latitude. An ionospheric electric field of 10^{-4} — $10^{-3} \text{ v} \cdot \text{cm}^{-1}$ was detected; the variation in the structure of the ionosphere at heights up to 500 km was investigated during the change from maximum to minimum solar activity. Radar investigations of Mercury and Venus confirmed the value previously obtained for the astronomical unit; the reflection coefficient of Mercury was found to be similar to that of the lunar surface. It was determined that Venus has a reverse spin with a period of about 300 days, if its axis is assumed to be perpendicular to the plane of the ecliptic. Flat sectors several km in length and having a reflection coefficient greater than that of the lunar surface were

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ACCESSION NR: AP3007551

identified on the surface of Mars. ✓

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 15Oct63

ENCL: 00

SUB CODE: AS

NO REF SOV: 000

OTHER: 000

Card 4/4

BLAGONRAVOV, A.A. (Szovjetunio).

Most important scientific problems of technical development.
Technika 7 no.5:2 My '63.

1. Szovjetunio Tudomanyos Akademiaja Geptani Intezetének
igazgatoja.

BLAGONRAVOV, An., akad.

Automation and the cosmos. Nauka i tekhnolozhiya. 15 no.6:9
Je '63.

BLAGONRAVOV, A. A., akademik

Principal scientific problems of technological progress. Vest.
AN SSSR 33 no.13-10 Ja '63. (MIRA 16:1)

(Research, Industrial)

BLAGONRAVOV, A.A., akademik

Exploration of outer space and the upper atmospheric layers.
Vest. AN SSSR 33 no.9:9-16 S '63. (MIRA 16:9)
(Ionospheric research) (Outer space—Exploration)

BLAGONRAVOV, A.A., akademik

Session of the Committee for the Exploration of Outer Space,
held in Warsaw. Vest. AN SSSR 33 no.10:70-72 0 '63.

(MIRA 16:11)

BLAGONRAVOV, A.A., akademik, red.; GRIGOR'YAN, A.T., doktor fiz.-mat. nauk, red.; DUSHKIN, L.S., doktor tekhn. nauk, red.; KOSMODEM'YANSKIY, A.A., doktor fiz.-mat. nauk, red.; KOZLOV, S.G., prof., red.[deceased]; SOKOLOVA, S.A., kandd. tekhn. nauk, red.; SOKOL'SKIY, V.N., kand. tekhn.nauk, red.; FEDOROV, A.S., kand. tekhn. nauk, red.; CHEKANOV, A.A., kand. tekhn. nauk, red.; SHUKHARDIN, S.V., kand. tekhn. nauk, red.

[From the history of rocket engineering] Iz istorii raketnoi tekhniki. Moskva, Nauka, 1964. 254 p. (MIRA 17:8)

1. Akademiya nauk SSSR. Institut istorii yestestvoznaniya i tekhniki.

SUPRUN, F.P.; SHIROKOV, K.V.; BLAGONRAVOV, A.A., akademik, red.;
SMIRNOV, Ye.A., red.; BORISOV, V.V., red.; BERDNIKOVA,
N.D., red.-leksikograf; KUZ'MIN, I.F., tekhn. red.

[English-Russian astronautics dictionary] Anglo-russkii
slovar' po kosmonavtike. Moskva, Voenizdat, 1964. 304 p.
(MIRA 17:2)

BLAGONRAVOV, A.A., akademik

Cooperation of the U.S.S.R. and the U.S.A. in space research.
Vest. AN SSSR 34 no.10:82-84 0 '64.

(MIRA 17:11)

~~BLAGONRAVOV~~, Antolij [Blagonravov, Anatoliy], akademik

For the benefit of man. Horyz techn 17 no. 9:15 S '64.

1. Chairman, Committee for Research and Utilization of
Cosmic Space, Academy of Sciences U.S.S.R.

LEVITSKIY, N.I., doktor tekhn. nauk prof., otv. red.; BLAGONRAVOV, A.A. akademik, red.; BESSONOV, A.P., doktor tekhn. nauk, red.; DIMENTBERG, F.M., doktor tekhn. nauk, prof., red.; ZINOV'YEV, V.A., doktor tekhn. nauk, prof., red.; KOBRINSKIY, A.Ye., doktor tekhn. nauk, red.; CHERKUDINOV, S.A., doktor tekhn. nauk, red.

[Current problems in the theory of machines and mechanisms] Sovremennye problemy teorii mashin i mekhanizmov. Moskva, Nauka, 1965. 342 p. (MIRA 19:1)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut mashinovedeniya.

L 23357-66 FSS-2/EEC(k)-2/EWA(d) JKT/TT

ACC NR: AF6005854

SOURCE CODE: PQ/0101/65/000/006/0030/0036

AUTHOR: Blagonrawow, Anatol Arkadiewicz (Academician); Kroszkin, M. (Candidate of Science)

ORG: none

TITLE: Soviet cosmic studies

SOURCE: Warsaw. Instytut lotnictwa. Biuletyn informacyjny, no. 6, 1965, 30-36

TOPIC TAGS: space environment, satellite

ABSTRACT: The article was written in Russian specially for the Biuletyn by A. A. Blagonrawow, General of the Artillery, (President of the Academy of Artillery Sciences since 1946) and member of the Presidium of the Academy of Sciences of the USSR and the International Astronautical Academy (IIA), and by Candidate of Technical Sciences M. Kroszkin, and translated into Polish. The article gives a review of the main achievements of Soviet science in understanding space since the beginning of space exploration during the International Geophysical Year. During the seven years which have passed since the first satellite was sent into orbit, a large amount of scientific information has been acquired about space conditions which has permitted sending man into space. Fifteen cosmonauts have already orbited around the earth. The significance of the information that has been obtained from space exploration

Cord 1/2

L 23357-66

ACC NR: AF6005854

is difficult to evaluate. Its significance is expressed in the thousands of scientific and popular articles that have been written on the subject. Orig. art. has: 4 fig.

SUB CODE: 22/ SUBM DATE: none

Card 2/2 *GW*

"APPROVED FOR RELEASE: 06/08/2000

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APPROVED FOR RELEASE: 06/08/2000

CIA-RDP86-00513R000205420010-7"

"APPROVED FOR RELEASE: 06/08/2000

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APPROVED FOR RELEASE: 06/08/2000

CIA-RDP86-00513R000205420010-7"

ACC NR: AN7003740

SOURCE CODE: UR/9004/67/000/025/0004/0004

AUTHOR: Blagonravov, A. (Academician; Chairman); Vereshchetin, V. (Candidate of legal sciences)

ORG: none

TITLE: Space cooperation

SOURCE: Kazakhstanskaya pravda, no. 25, 29 Jan 67, p. 4, col. 1-4

TOPIC TAGS: ~~space law~~, space flight, *space program*

ABSTRACT:

This is an abridged version of an article by Academician Blagonravov and Candidate of Juridical Sciences V. Vereshchetin that will be published in full in the first issue of the journal "Zemlya i Vselennaya." In this article, the authors tell about the cooperation of various countries for space mastery. However, the development and selection of means for this purpose are still hindered by international tension.

SUB CODE: 22/ SUBM DATE: none/ ATD PRESS: 5113

Card 1/1

UDC: none

ELAGORAVOV, B. P.

29809

Ulechshit, Rabotu shkol pchyelovodstva. Pchyelovodstvo, 1949, No. 9, S. 10-11

SO: LETOPIS' NO. 40

SUKHARCHUK, Yu.S.; BLAGONRAVOV, B.P.; RESHETNIKOV, G.K.

Interaction of technological parameters of melting in cupolas of
various design. Lit. proizv. no.2:8-10 F '63. (MIRA 16:3)
(Cupola furnaces--Design and construction) (Melting)

SUIHARCHUK, Yu.S.; BLAGONRAVOV, B.P.; KRAKOVSKIY, Ye.B.; RESHETNIKOV, G.K.

Interrelation of melting parameters in high capacity cupolas.
Lit. proizv. no.1:15-17 Ja '65. (MIRA 18:3)

KLETSKIN, G.I., kand. tekhn. nauk; SUKHARCHUK, Yu.S., kand. tekhn. nauk;
BLAGONRAVOV, B.P., inzh.; SOBOL', N.L., inzh.; D'YAKONOV, V.Ye.,
inzh.; RABINOVICH, V.D., inzh.

Melting cast iron in a coke-oven gas-fired cupola. Lit.proizv.
no.12:1-4 D '65. (MIRA 18:12)

BLAGONRAVOV, N.S.

Some data on the hydrogeology of the Upper Maykop sediments of central and eastern cis-Caucasia. Izv. vys. ucheb. zav.; neft' i gaz 8 no.4: 17-20 '65. (MIRA 18:5)

1. Groznenskiy neftyanoy institut.

ELAGONRAVOV, P. P.

DECEASED

1962/7

c. 1962

AGRICULTURE

see ILC

BLAGONRAVOV, S. A.

24817. BLAGONRAVOV, S. A. Ob Izmeneni Yakh Tipov Mineralogicheskikh Assotsiyatsiy
Oblomochnykh Porod Mezozoiskikh i Tretichnykh Otcozhenii Vostochnoy chasti
Severnogo Kavkaza, Trudy Grozn Neft. In-ta, Sb. 7, 1949, S 38-53.--Bibliog⁸ 15 Nazv

SO: Letopis' No. 33, 1949

BLAGONRAVOV, S.I.

MATVEYEV, L.M., inshener: ~~BLAGONRAVOV, S.I.~~

Reduce the cumbrousness of current accounting for milled peat.
Torf.prom.34 no.1:13-15 '57. (MLRA 10:2)

1. Gor'kovskiy torfotrest (for Matveyev). 2. Pikinskoye torfopred-
priyatiye (for Blagonravov).
(Peat industry--Accounting)

KARAKIN, F.F.; RODICHEV, A.F.; PUTIY, G.P.; BASOV, A.P.; PYATAKOV, L.V.; RAUTSEP, A.P. [Rautsepp, A.]; BLAGONRAVOV, S.I.; GRECHIKHO, A.M.; DRUZHININ, N.N.; SHUKHMAN, D.I.; BAUSIN, A.F.; LOYKO, P.G.; CHERNAKOV, B.A.; SHORNIKOV, F.M.; SOPIN, P.F.

Remarks of the members of the Conference. Torf. prom. 37 no.5: 22-28 '60. (MIRA 14:10)

1. Ivanovskiy gosudarstvennyy torfotrest (for Karakin).
 2. Sverdlovskiy torfotrest (for Rodichev).
 3. Gosplan USSR (for Putiy).
 4. Leningradskiy gosudarstvennyy trest torfyanoy promyshlennosti (for Basov).
 5. Moskovskiy oblastnoy sovnarkhoz (for Pyatakov).
 6. Gosudarstvennyy nauchno-tekhnicheskii komitet Estonskoy SSR (for Rautsep).
 7. Ger'kovskiy sovnarkhoz (for Blagonravov).
 8. Belorusskiy sovnarkhoz (for Grechikho, Shukhman).
 9. Yaroslavskiy sovnarkhoz (for Druzhinin).
 10. Bobruyskaya mashinno-meliorativnaya stantsiya (for Loyko).
 11. Gipromestprom Gosplana RSFSR (for Chernakov).
 12. Mezhholkhozhnoye torfopredpriyatiye "Volosovskoye" Leningradskoy oblasti (for Shornikov).
 13. Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy promyshlennosti (for Sopin).
- (Heat industry)

BLAGONRAVOV, S.I.; BREK, B.M.; BYAKOV, P.T.; VIKTOROV, V.S.; VAGANOV,
V.I.; GUSEV, S.A.; GLEBOV, V.V.; GURILEV, A.M.; DANILOV, G.D.;
ZAV'YALOV, V.G.; IOFFE, Ye.F.; IZVEKOV, G.M.; KONGVALOV, S.A.;
KULIGIN, A.S.; KASATKIN, A.P.; KUZNETSOV, N.I.; LEBEDEV, A.I.;
LEMPERT, Ye.N.; MARGEVICH, Ya.I.; MAYZEL', M.A.; MITYAKOV, V.S.;
NOSKOV, M.M.; RYABCHIKOV, M.Ya.; BATSMAN, N.I.; TVOROGOV, M.K.;
UGOL'NIKOV, V.Ya.; KHAR'KOV, G.I.; CHADOV, S.L.

Lev Mil'evich Matveev; obituary. Torf. prom. 38 no.4:38 '61.
(MIRA 14:9)
(Matveev, Lev Mil'evich, 1914-1961)

15-1957-10-13904
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
pp 75-76 (USSR)

AUTHORS: Blagonravov, V. A., Shenkman Ya. D.

TITLE: Relations Among the Granitoidal Rocks in the Lower
Course of the Kaa-Khem River (Eastern Tuva) /О соотно-
шении между гранитоидами нижнего течения р. Кaa-
Khem (Vostochnaya Tuva)/

PERIODICAL: Tr. Vses. aerogeol. tresta, 1956, Nr 2, pp 88-93

ABSTRACT: In the region of the village of Znamenka, along the
lower course of the Kaa-Khem River (Malyy Yenisey), the
oldest rocks are Lower Cambrian and intensely deformed.
They are greenstone porphyrites, quartz-plagioclase
porphyries, marmorized limestones and, in subordinate
amounts, quartzites. Lower Devonian (?) effusive-tuf-
faceous beds lie unconformably on this sequence and are
presumably by Middle Devonian clastic red beds. The
intrusive rocks of the region form two groups: 1)
granodiorites, quartz diorites, diorites, gabbros, and

Card 1/3

15-1957-10-13904

Relations Among the Granitoidal Rocks in the Lower Course of the Kaa-Khem River

pyroxenites; and 2) granites (pink), granite porphyries, and granodiorite porphyries. Granodiorites and quartz diorites are the most abundant of the first group; tonalite-type rocks are distinguished among the quartz diorites (high biotite and hornblende content). All the rocks in the first group are related by gradual transitions and show local alternations of one variety with another. The gabbro-norites, which are typical hybrid rocks, form schlieren segregations in the diorites and gabbro-diorites, and commonly occur at contacts with limestones and effusives of basic and intermediate compositions. The group as a whole corresponds to the "Tannuol'skiy" complex of V. A. Kuznetsov and G. V. Pinus (Dokl. AN SSSR, vol 65, Nr 1, 1949) or the "Argol'skiy" complex of L. N. Leont'yev (Dokl. AN SSSR, vol 91, Nr 5, 1953); the author proposes the preservation of term "Tannuol'skiy." Pink granitoidal rocks with both abyssal and hypabyssal features form the second group: granites, granite porphyries, and granodiorite porphyries. The abyssal varieties generally occur in the central parts of the masses, the hypa-

Card 2/3

Relations Among the Granitoidal Rocks in the Lower Course of the Kaa-
Khem River 15-1957-10-13904

byssal about the peripheries. The author compares these rocks, in age relations and in composition, with the "Late Caledonian" complex of V. A. Kuznetsov and G. V. Pinus. In both, intrusions of different ages are characterized by the following features: 1) young granites form small bodies, commonly where Lower Devonian rocks occur; 2) the structural pattern of the masses, which the rocks of the first group share with their host rocks, is in contrast with the structureless masses of the rocks of the second group; 3) the many varieties in the first group, produced by assimilation and hybridization, also contrast with the relatively homogeneous composition of the second group; 4) there is a difference in the intensity of endogene and exogene changes; and 5) in the group of pink granites the alkali content is high and the amount of CaO , Al_2O_3 , Fe_2O_3 , FeO , and MgO is low.

Card 3/3

S. P. Bryzgalina

BLAGONRAVOV, V.A.; KUDRYAVTSEV, G.A.

"Absolute age of some igneous and metamorphic rocks in the central part of the Altai-Sayan area" by T.N.Ivanova and others. Reviewed by V.A.Blagonravov, G.A.Kudriavtsev. Sov.geol. 6 no.4:159-160 Ap '63.
(MIRA 16:4)
(Altai Mountains—Geology, Stratigraphic) (Ivanova, T.N.)

BLAGONRAVOV, V.I., inzhener; KIRICHOK, Yu.G., inzhener.

Redesign of hoisting systems in mines of the Krivoy Rog Basin.
Gor. shur. no.7:66-69 J1 '57. (MIRA 10:8)

1. Energolaboratoriya tresta Dzerzhinskruka.
(Krivoy Rog--Mine hoisting)

Blagonravov, V.I.

SOV/127-59-3-6/22

14(5)

AUTHORS:

Malinovskiy, N.Ya, Chichivanov, R.P., Blagonravov, V.I., Kirichok, Yu. G. and Popovich, F.N., Engineers.

TITLE:

The Automatic Control of an Electrically Driven Hoist with an Exciter-Regulator. (Avtomaticheskoye upravleniye elektropriivodom pod"yema s vozbuditel'em-regulyatorom.)

PERIODICAL:

Gornyy zhurnal, 1959, Nr 3, pp 24-26 (USSR)

ABSTRACT:

Laboratoriya avtomatiki i telemekhaniki Leningradskogo gornogo instituta (Laboratory of Automation and Telemechanics of the Leningrad Mining Institute) developed a new automation system for skip hoisting in the Severnaya Mine of the Mine Management imeni Kirov. A normal direct current motor of PN-100 type is used as an exciter-regulator of the generator. To make the use of such motor possible, its parallel winding was divided in two parts. This winding, generally consists of two coils on each pole. The dividing consists in connecting coils with a larger

Card 1/2

SERGEYEV, A.S., kand.tekhn.nauk; BLAGONRAVOV, V.I., dotsent; RITIN, A.M.,
gornyy inzh.-elektromekhanik (Moskva)

Discussion of IA.B.Kal'nitskii and S.P.Vasil'evskii's article
"Problems in the automation of stoping equipment in the mining
industry." Ger.zhur. no.5:48-52 № '62. (MIRA 16:1)

1. Krivorozhskiy gornorudnyy institut.
(Mining machinery) (Automation)
(Kal'nitskii, IA. B.) (Vasil'evskii, S. P.)

| (1) AND THE OTHERS | | | | | | | | | | (2) AND THE OTHERS | | | | | | | | | |
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| PROCESSES AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | |
| <div style="position: relative;"> <div style="position: absolute; top: 10px; left: 10px; font-size: 2em;">10</div> <div style="position: absolute; top: 10px; right: 10px; font-size: 2em;">8</div> <div style="position: absolute; top: 100px; left: 100px; font-size: 1.5em;">BLAGORAVOVA, A</div> <div style="position: absolute; top: 200px; left: 300px;"> <p>Notes on the mineralogy of Mediterranean sediments of the Garmy oil-bearing district. S. A. Blagoravov. <i>Gosudarst. Naftn. G. No. 11-12, 31-4(1936).</i>—A mineralogical and geol. review with 16 references.</p> <p style="text-align: right;">A. A. Bochtlingk</p> </div> </div> | | | | | | | | | | | | | | | | | | | |
| ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION | | | | | | | | | | | | | | | | | | | |
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| PROCESSING AND PROPERTIES INDEX | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 1ST AND 2ND ORDERS | | | | | | | | | | | | | 3RD AND 4TH ORDERS | | | | | | | | | | | | |
| <p><i>ca</i></p> <p>Varnish resins obtained by nitrating petroleum hydrocarbons. A. Ya. Drinberg, A. A. Blagonravova and E. M. Prik. <i>J. Applied Chem. (U.S.S.R.)</i> 7, 1223-9 (1934). Paraffin oil, petrolatum and gas oil were nitrated with 38° Bé. HNO₃ and its mixt. with 73° Bé. H₂SO₄ at temps. of 120°, 130° and 200°. The yields were higher with a nitrating mixt. than with HNO₃ alone. The resins obtained were sol. in acetone, amyl acetate, benzene and CHCl₃ and insol. in gasoline and turpentine; they produced transparent skins and solid resins after evapn. of the solvent. Various expts. for the production of a hard skin with the introduction of vegetable oils and rosin are described. The unsatd. compds. of petroleum yielded on treatment with HNO₃ (d. 1.5) a brownish resin which increased in hardness after excess acid was washed off. The best nitration temp. was 90-100°. Expts. with nitrating mixts. of the "polymers" with EtOH and rosin are discussed. A. A. Boettlinck</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>13</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

197 AND 200 CODES

PROCESSING AND PROPERTIES INDEX

BC

B-II-8

Influence of the alcoholic residues on the film-forming properties of linseed oil esters. A. J. Demchenko and A. A. Babitskaya (J. Gen. Chem. USSR, 1955, 3, 1525-1527). The esters of the fatty acids obtained by hydrolysis of linseed oil (I) (linoleic, stearic, myristic, lauric, and palmitic acids) were esterified with 10% alcohol. The esters of the fatty acids obtained by hydrolysis of linseed oil (I) with respect to their drying properties, those of palmitic acid dry sooner and give harder films, while stearic acid have the same drying time and give the same type of film as (I). R. T.

ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION

| SOURCE | | EXTRACT | | ABSTRACT | | SUMMARY | |
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| 1ST AND 2ND EDITIONS | | 3RD AND 4TH EDITIONS | |
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| PROCESSING AND PROPERTY INDEX | | | |
| <p><i>BC</i></p> <p style="text-align: right;"><i>16-II-7</i></p> <p>Products of esterification of fatty acids with one ethylenic linkage, and their drying properties. A. A. BRADONAYOVA and A. J. DUBINSKII (J. Appl. Chem. Russ., 1938, 11, 1643—1647).—Mandel or pentaerythritol was heated at 200–230° with linseed oil acids, or stearic, oleic, ricinoleic, or croctic acid, in EtOH, to yield the corresponding esters. Of these, the esters with oleic, ricinoleic, and linseed oil acids had drying properties, the hardness of the film rising in the order given. The films are distinguished by their impermeability to H₂O vapour. R. T.</p> | | | |
| <p style="text-align: center;">ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> | | | |
| SEARCHED SERIALIZED INDEXED FILED | | RECORDED SERIALIZED INDEXED FILED | |
| OCT 1964 FBI - NEW YORK | | OCT 1964 FBI - NEW YORK | |

1ST AND 2ND SECTIONS
 PROCESSED AND PROPERTIES INDEX
 BC

E-II-8

General information: A. A. Blagokratova and
 V. M. Kozminskaya (Pisma. Org. Khim., 1958, 6, 308-
 309). The acid oil is heated with glycerol in presence
 of 50% of P₂O₅ in 5% of C₆D₆ (25-30 hr. at 240°),
 and the product is processed with phthalic
 anhydride at 220-240° in a CO₂ atm. R. T.

1ST AND 2ND SECTIONS
 PROCESSED AND PROPERTIES INDEX
 BC

E-II-8

1ST AND 2ND SECTIONS
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1ST AND 2ND SECTIONS
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1ST AND 2ND SECTIONS
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E-II-8

BC

B-D-f

Drying of synthetic esters of polyhydric alcohols. I. Rate of association processes in drying of synthetic esters. A. A. ELASHCHAYOVA and A. M. KOSYUR (Zh. Prikl. Khim., 1969, 42, 1718-1722).—The rate of drying of linseed oil balls as the duration of polymerization (1–5 hr. at 200°, in an atm. of H₂ steam). In these conditions the velocity of drying of esters of fatty acids of linseed oil with glycol or butyrol is studied. The process of drying of these esters involves not association as well as polymerization.

R. T.

ASB-31.4 METALLURGICAL LITERATURE CLASSIFICATION

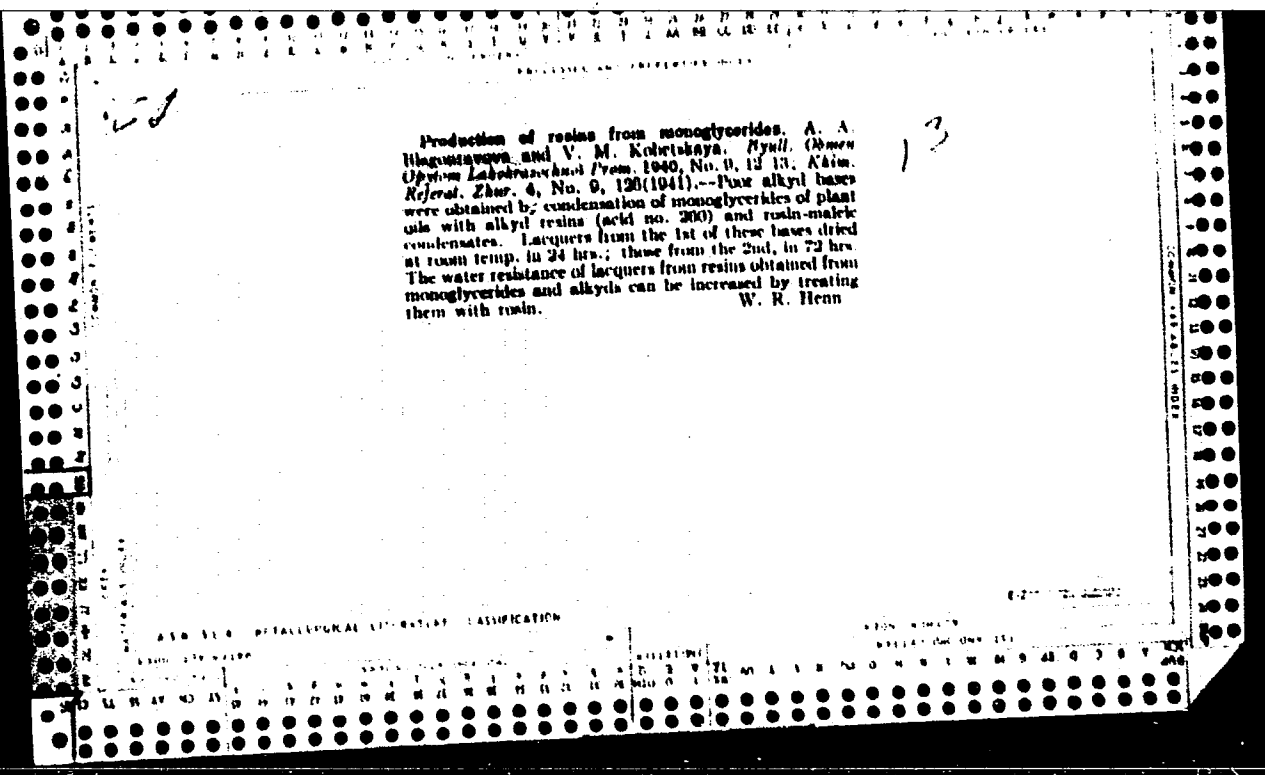
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10

PRODUCTS AND PROPERTIES INDEX

Products of esterification of sorbic and crotonic acids.
A. Ya. Dzhinberg and A. A. Magaryan, *Chem. Ind. (U. S. S. R.)* 7, 388 (1940). Crotonic acid was esterified with pentaerythritol and sorbic acid was esterified with $\text{Au}(\text{OH})_3$, $(\text{CH}_2\text{OH})_4$, glycerol and pentaerythritol. It was not possible to obtain film-forming products from crotonic acid. Sorbic acid and $(\text{CH}_2\text{OH})_4$ gave a product that polymerized rapidly in the air, was sol. in org. solvents and formed solid films. The esterification of the sorbic acid with other alcs. did not proceed far enough because of the rapid polymerization of the products formed.
B. Z. Kamich

ASH 56.4 METALLURGICAL LITERATURE CLASSIFICATION



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1A

The selection of the most effective catalysts and conditions for esterification of oils and fatty acids. A. A. Blagomiravova and M. A. Antipova. *Byull. Khim. Prom.* 1940, No. 10, 18-19. — In *Dokl. Akad. Nauk SSSR* 1940, No. 10, 18-19. — In the esterification of oleic and phthalic acids with glycerol, the use of catalyst (toluene-sulfonic acid) is necessary only when low temps. (140°) are used. In exchange esterification of vegetable oils with glycerol or pentaerythritol, CaO and PbO are effective catalysts, while MgO is less effective, and oxides of Zn , Fe and Co are ineffective. Caustic alkali, in the form of an alcoholate of the alcohol used, is even more effective than the oxides. Alk. and water-soluble salts were ineffective. In exchange esterification between linseed oil and oleic acid, ZnCl_2 and $\text{Al}_2(\text{SO}_4)_3$ were effective at 200°; but ineffective for the same reaction with phthalic acid. Maleic anhydride was the most effective acidic component, as much as 35% of it entering linseed oil compn. at 180-200°. G. M. Kowalevskii

| 1ST AND 2ND EDITIONS | | PROCESSING AND PROPERTY INDEX | | 3RD AND 4TH EDITIONS | |
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| BC | | | | 021 | |
| <p>Notes of polymeric alcohols with unsaturated fatty acids.</p> <p>I. Reaction of esterification of pentamethylol with linseed oil acids. II. Part played by oxidation in drying of synthetic esters. A. A. Kuznetsov and A. M. Lashov <i>J. Appl. Chem. Russ.</i>, 1958, 31, 576-582, 583-587. I. Esterification of pentamethylol with linseed oil acids proceeds at 200-240°, and does not differ significantly from esterification of simpler alcohols with saturated acids. Reactions of polymerization and oxidation are not involved.</p> <p>II. In the drying of films of the above esters oxidation processes are relatively of greater importance than polymerization processes, as compared with tung oil. Polymerization depresses oxidizability of natural but not synthetic esters.</p> <p>R. T.</p> | | | | | |
| ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION | | | | | |
| FROM SYMBOLIC | | TO SYMBOLIC | | FROM SYMBOLIC | |
| GROUPS | | SYMBOLS | | SYMBOLS | |
| A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | | A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | | A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | |

BC

1ST AND 2ND DEGREES

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH DEGREES

B-2-7

Notes of polymerization studies with concentrated acids. II. Study of mechanism of polymerization of styrene and other monomers. A. A. Bortnikov, N. A. Anisimov, O. N. Savvin, and R. M. Vysotskii, *Vysokomol. Soedin.* 1961, 14, 188-197. — Mixtures of monomers and oligomers are obtained by heating. Based on the study of polymerization of styrene in presence of 0-5% of CaO . Part of the condensed product of the oil is dissolved by polymerization by heating at 200° in presence of 0-5% of CaO . The velocity of the process increases with rising temp., as does also that of conversion of polymer into oil. R. T.

ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION

| 1ST DEGREE | | | | | | | | | | 2ND DEGREE | | | | | | | | | | 3RD DEGREE | | | | | | | | | | 4TH DEGREE | | | | | | | | | | | | | | | | | | | | | |
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| 1ST DEGREE | | | | | | | | | | 2ND DEGREE | | | | | | | | | | 3RD DEGREE | | | | | | | | | | 4TH DEGREE | | | | | | | | | | | | | | | | | | | | | |
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | AA | AB | AC | AD | AE | AF | AG | AH | AI | AJ | AK | AL | AM | AN | AO | AP | AQ | AR | AS | AT | AU | AV | AW | AX | AY | AZ |

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PROCESSES AND PROPERTIES INDEX

CR

Lacquer resins from maleic anhydride. A. A. Blagonravova and R. S. Karinska. *J. Chem. Ind. (U. S. S. R.)* 18, No. 4, 25-8(1941).—Partly hydrolyzed linseed, sunflower or cottonseed oils contain mists of mono- and diglycerides and some free glycerol (I). Such oils react with maleic anhydride (II) to give a dark tar which results from reaction of I and II. To obtain satisfactory plastics, I must be removed, by washing with hot H_2O , or better, by adding enough phthalic anhydride (III) to react with I but not enough to react with the glycerides. The mixt. is then allowed to react with II to give a phthalomaleic resin, sol. in turpentine or xylene, which can be used for lacquers. The films are very H_2O -resistant, especially when the content of III is low. When free fatty acids are present, the resins are darker. If the reaction is carried out in $BuOH$, the resulting resins are much softer, owing to formation of Bu esters which act as plasticizers. *Ibid.* No. 11, 19-21(1941).—When 5-25% maleic anhydride (I) is added to tung, linseed, sunflower, cottonseed or olive oil at 180-200°, it gives a light colored resin with lowered acid and I no. If more than 25% I is used, the viscosity of the product is lowered. The viscosity of the product depends on the amt. of I used and the length of heating. In tung oil, I unites with a double bond which does not add I, and so the I no. of the product falls only if the product is polymerized. The residual free acid groups can be esterified with ethylene glycol, and glycerol can be used if the product contains less than 10% I. CaO can also be used to neutralize the acidity. The resins can be used in lacquers, but those prepd. from semidrying oils are satisfactory only for hot drying. H. M. L.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

SELECT ONE OR MORE

GROUPS

SELECT ONE OR MORE

GROUPS

BLAGONRAVOVA, A. A.

Alkyd resins from pentaerythritol. A. A. Blagonravova and M. A. Antipova. *J. Chem. Ind. (U. S. S. R.)* 18, No. 9, 16-17 (1941).—Linseed and sunflower oils undergo partial alcoholysis with pentaerythritol when heated at 220° with an alk. catalyst. The product is then treated with phthalic anhydride at 240° until it contains 13-20% of the latter. This product is heated at 250-60° for 3-6 hrs. to complete polymerization. When dissolved in the ratio of 1:1 in the usual lacquer solvents, these resins form good lacquers. The one obtained from sunflower oil can be dried at high temps. H. M. Leicester

resistant coatings, but darker in color. W. M. Sternberg